



SEQUENCE LISTING

<110> John, Varghese
Sinha, Sukanto
Tung, Jay

<120> Beta-Secretase Enzyme Compositions And Methods

<130> 015270-006460US

<140> US 09/730,329

<141> 2000-12-04

<150> US 60/168,854

<151> 1999-12-02

<160> 68

<170> PatentIn version 3.2

<210> 1

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<213> Homo sapiens

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Glu Thr Asp Glu Glu Pro Glu Glu Pro Gly Arg Arg Gly Ser Phe Val
1 5 10 15

Glu Met Val Asp Asn Leu Arg Gly
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<211> 15

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Ile Ser Phe Ala Val Ser Ala Cys His Val His Asp Glu Phe Arg
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<211> 11

<212> PRT

<213> Homo sapiens

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Glu Thr Asp Glu Glu Pro Glu Glu Pro Gly Arg
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<210> 4

<211> 10

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<213> Artificial

<220>
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Thr Gln His Gly Ile Arg Leu Pro Leu Arg
 1 5 10

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Met Val Asp Asn Leu Arg Gly Lys Ser
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<210> 6
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 <213> Artificial

<220>
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Gly Ser Phe Val Glu Met Val Asp Asn Leu
 1 5 10

<210> 7
 <211> 419
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 cggatcgga aacctctcga ctgttgggggt gagtactccc tctcaaaagc gggcatgact 180
 tctgcgctaa gattgtcagt ttccaaaaac gaggaggatt tgatattcac ctggcccgcg 240
 gtgatgcctt tgagggtggc cgcgtccatc tggtcagaaa agacaatctt tttgttgtca 300
 agcttgaggt gtggcaggct tgagatctgg ccatacactt gagtgacaat gacatccact 360
 ttgcctttct ctccacaggt gtccactccc aggtccaact gcaggtcgac tctagaccc 419

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 <400> 8
 cggccggagg ggcagctttg tg 22

<210> 9
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 <213> Homo sapiens

 <400> 9
 cccggccgga ggggcagctt tgtggagatg gt 32

<210> 10
 <211> 11
 <212> PRT
 <213> Homo sapiens

 <400> 10

 Pro Gly Arg Arg Gly Ser Phe Val Glu Met Val
 1 5 10

<210> 11
 <211> 26
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 <220>
 <223> Primer 3468

 <400> 11
 cagcataggc cagccccagg atgcct 26

<210> 12
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 <223> Primer 3458

 <400> 12
 gaggggcagc tttgtggaga 20

<210> 13
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 <213> Artificial

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<220>
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<210> 31
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<212> DNA
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<211> 17
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<223> n is a, c, g, or t

<400> 32
gaygargagc cngagga 17

<210> 33
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<213> Artificial

<220>

<223> Primer

<220>

<221> misc_feature

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gaygargagc cngaaga

17

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<211> 17

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<220>

<223> Primer

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<221> misc_feature

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gaygargaac cngagga

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<211> 17

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<213> Artificial

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<223> Primer

<220>

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gaygargaac cngaaga

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<210> 36

<211> 15

<212> DNA

<213> Artificial

<220>

<223> Primer

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<221> misc_feature
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<223> n is a, c, g, or t

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<223> n is a, c, g, or t

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<222> (12)..(12)
<223> n is a, c, g, or t

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tcnaccatyt cnacaaa

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<222> (3)..(3)
 <223> n is a, c, g, or t

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 <221> misc_feature
 <222> (12)..(12)
 <223> n is a, c, g, or t

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 <212> DNA
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 <220>
 <223> 5' Primer

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 <210> 41
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 <220>
 <223> 5' Primer

 <400> 41
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 <220>
 <223> 5' Primer

 <400> 42
 atattctaga gaygargagc ccgaaga 27

 <210> 43
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 <212> DNA
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 <223> 5' Primer

 <400> 43
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 <210> 44

<211> 30
<212> DNA
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<223> Primer

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30

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<220>
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<220>
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 <220>
 <223> 5' Primer

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 aagagcccgg ccggaggggc a 21

 <210> 49
 <211> 21
 <212> DNA
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 <220>
 <223> 3' Primer

 <400> 49
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 <210> 50
 <211> 26
 <212> DNA
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 <220>
 <223> 5' Primer

 <400> 50
 agctcgttta gtgaaccgtc agatcg 26

 <210> 51
 <211> 26
 <212> DNA
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 <220>
 <223> 3' Primer

 <400> 51
 acctacaggt ggggtctttc attccc 26

 <210> 52
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 <223> WT cleavage site
 <400> 52

Val Lys Met Asp Ala
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 <223> Swedish cleavage site
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Val Asn Leu Asp Ala
 1 5

<210> 54
 <211> 33
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 <223> p26-p4' substrate
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Cys Gly Gly Ala Asp Arg Gly Leu Thr Thr Arg Pro Gly Ser Gly Leu
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Thr Asn Ile Lys Thr Glu Glu Ile Ser Glu Val Asn Leu Asp Ala Glu
 20 25 30

Phe

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 <211> 29
 <212> PRT
 <213> Artificial
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 <223> p26-P1 standard.
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Cys Gly Gly Ala Asp Arg Gly Leu Thr Thr Arg Pro Gly Ser Gly Leu
 1 5 10 15

Thr Asn Ile Lys Thr Glu Glu Ile Ser Glu Val Asn Leu
20 25

<210> 56
<211> 9
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<220>
<223> Cleavage product

<400> 56

Ser Glu Val Asn Leu Asp Ala Glu Phe
1 5

<210> 57
<211> 30
<212> PRT
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<220>
<223> Substrate peptide

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Ala Asp Arg Gly Leu Thr Thr Arg Pro Gly Ser Gly Leu Thr Asn Ile
1 5 10 15

Lys Thr Glu Glu Ile Ser Glu Val Asn Leu Asp Ala Glu Phe
20 25 30

<210> 58
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<212> PRT
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<220>
<223> P10-P4'(D>V) peptide

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<222> (10)..(10)
<223> Xaa can be any naturally occurring amino acid

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Lys Thr Glu Glu Ile Ser Glu Val Asn Xaa Val Ala Glu Phe
1 5 10

<210> 59
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<212> PRT
<213> Artificial

<220>
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 <223> X is hydrogenated valine, acetylated valine, t-butoxycarbonyl valine or carbobenzoyl valine.

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 <222> (2)..(2)
 <223> X is methionine, phenylglycine, n-leucine, asparagine, phenylalanine, glycine or valine.

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 <221> MISC_FEATURE
 <222> (3)..(3)
 <223> X is statine, aha(cyclohexylmethylstatine) or phenylstatine, wherein the phenyl group may optionally have mono or di-substitution chosen from the group consisting of Cl, F, Br, methyl and methoxy.

<220>
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 <222> (4)..(4)
 <223> X is valine, alpha-aminobutyric acid, phenylglycine or alanine.

<400> 59

Xaa Xaa Xaa Xaa Ala Glu Phe
 1 5

<210> 60
 <211> 7
 <212> PRT
 <213> Artificial

<220>
 <223> Inhibitor molecule

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 <223> X is hydrogenated valine, acetylated valine, t-butoxycarbonyl valine or carbobenzoyl valine.

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 <222> (3)..(3)
 <223> X is statine.

<400> 60

Xaa Met Xaa Val Ala Glu Phe
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<210> 61
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<212> PRT
<213> Artificial

<220>
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<222> (2)..(2)
<223> X is phenylglycine.

<220>
<221> MISC_FEATURE
<222> (3)..(3)
<223> X is statine.

<400> 61

Xaa Xaa Xaa Val Ala Glu Phe
1 5

<210> 62
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<212> PRT
<213> Artificial

<220>
<223> Inhibitor molecule

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<223> X is hydrogenated valine, acetylated valine, t-butoxycarbonyl valine or carbobenzoyl valine.

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<221> MISC_FEATURE
<222> (3)..(3)
<223> X is statine.

<400> 62

Xaa Leu Xaa Val Ala Glu Phe
1 5

<210> 63
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<212> PRT
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<220>
<223> Inhibitor molecule

<220>
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<223> X is hydrogenated valine, acetylated valine, t-butoxycarbonyl
valine or carbobenzoyl valine.

<220>
<221> MISC_FEATURE
<222> (3)..(3)
<223> X is statine.

<400> 63

Xaa Asn Xaa Val Ala Glu Phe
1 5

<210> 64
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<212> PRT
<213> Artificial

<220>
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<223> X is hydrogenated valine, acetylated valine, t-butoxycarbonyl
valine or carbobenzoyl valine.

<220>
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<222> (3)..(3)
<223> X is statine.

<400> 64

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<210> 65
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<212> PRT
<213> Artificial

<220>
<223> Inhibitor molecule

<220>
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<222> (1)..(1)
<223> X is hydrogenated valine, acetylated valine, t-butoxycarbonyl

valine or carbobenzoyl valine.

<220>

<221> MISC_FEATURE

<222> (4)..(4)

<223> X is statine.

<400> 65

Xaa Met Phe Xaa Val Ala Glu Phe

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5

<210> 66

<211> 7

<212> PRT

<213> Artificial

<220>

<223> Inhibitor molecule

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<222> (1)..(1)

<223> X is acetylated valine.

<220>

<221> MISC_FEATURE

<222> (3)..(3)

<223> X is statine.

<400> 66

Xaa Met Xaa Val Ala Glu Phe

1

5

<210> 67

<211> 7

<212> PRT

<213> Artificial

<220>

<223> Inhibitor molecule

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<223> X is hydrogenated glutamic acid, acetylated glutamic acid,
t-butoxycarbonyl glutamic acid or carbobenzoyl glutamic acid.

<220>

<221> MISC_FEATURE

<222> (3)..(3)

<223> X is methionine, phenylglycine, n-leucine, asparagine,
phenylalanine, glycine, or valine.

<220>

<221> MISC_FEATURE

<222> (4)..(4)
<223> X is hydroxyethylene.

<400> 67

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1 5

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<220>
<223> Inhibitor molecule

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<222> (1)..(1)
<223> X is hydrogenated glutamic acid, acetylated glutamic acid,
t-butoxycarbonyl glutamic acid or carbobenzoyl glutamic acid.

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<221> MISC_FEATURE
<222> (4)..(4)
<223> X is hydroxyethylene.

<400> 68

Xaa Val Met Xaa Ala Glu Phe
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